IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (currently amended): A method of treating a gas containing a fluorine-containing compound, comprising:

contacting [[said]] a gas including at least one fluorine-containing compound with a treatment agent ~~comprising a mixture of aluminum hydroxide and calcium hydroxide~~ at a temperature of 550 to 850°C,

wherein the at least one fluorine-containing compound comprises at least one of a fluorinated hydrocarbon and a perfluoro compound, the treatment agent comprises an agglomerate including calcium hydroxide particles attached to surfaces of aluminum hydroxide particles, the calcium hydroxide particles have a particle diameter of 3-10 μm, and the aluminum hydroxide particles have a particle diameter of 50-100 μm.

Claim 2 (currently amended): A method of ~~carrying out decontamination treatment on~~ decontaminating a gas ~~containing at least one selected from the group consisting of fluorine-containing compounds, oxidizing gases, acidic gases and CO~~, comprising:

adding oxygen to [[said]] a gas including at least one of CO and a compound that produces CO during a decontamination of the gas; and

contacting said gas with a treatment agent ~~comprising a mixture of aluminum hydroxide and calcium hydroxide~~ at a temperature of 550 to 850°C,

wherein the treatment agent comprises an agglomerate including calcium hydroxide particles attached to surfaces of aluminum hydroxide particles, the calcium hydroxide particles have a particle diameter of 3-10 μm, and the aluminum hydroxide particles have a particle diameter of 50-100 μm.

Claims 3-4 (canceled)

Claim 5 (currently amended): [[The]] A method of treating a gas including a fluorine-containing compound, comprising: ~~according to claim 1,~~

contacting a gas including at least one fluorine-containing compound with a treatment agent at a first temperature of 500 to 700°C; and

contacting the gas with the treatment agent at a second temperature of 650 to 800°C,

wherein ~~said gas containing a~~ the at least one fluorine-containing compound comprises at least one of a fluorinated hydrocarbon and a perfluoro compound, ~~is initially made to contact with~~ said treatment agent comprises an agglomerate including calcium hydroxide particles attached to surfaces of aluminum hydroxide particles, the calcium hydroxide particles have a particle diameter of 3-10 μm, the aluminum hydroxide particles have a particle diameter of 50-100 μm, ~~comprising a mixture of aluminum hydroxide and calcium hydroxide at a temperature of 500 to 700°C, and is then made to contact with said treatment agent comprising a mixture of aluminum hydroxide and calcium hydroxide at a temperature~~ and the second temperature is higher than the first temperature by 50 to 150°C ~~higher than initially in a range of 650 to 800°C~~.

Claim 6 (withdrawn): An apparatus for treating a gas containing a fluorine-containing compound, comprising:

a treatment column comprising a hollow interior that is packed with a treatment agent comprising a mixture of aluminum hydroxide and calcium hydroxide and through which said gas can pass, heating means capable of heating said hollow interior to a prescribed temperature, a gas introduction port for introducing said gas into said hollow interior, and an exhaust pipe for discharging gas produced from said hollow interior.

Claim 7 (withdrawn): An apparatus for carrying out decontamination treatment on a gas containing at least one selected from the group consisting of fluorine-containing compounds, oxidizing gases, acidic gases and CO, comprising:

a treatment column comprising a hollow interior that is packed with a treatment agent comprising a mixture of aluminum hydroxide and calcium hydroxide and through which said gas can pass, heating means capable of heating said hollow interior to a prescribed temperature, a gas introduction port for introducing said gas into said hollow interior, and an exhaust pipe for discharging gas produced from said hollow interior; and

means for adding oxygen to said gas before said gas is introduced into said treatment column or an oxygen introduction pipe for introducing oxygen into said treatment column.

Claim 8 (withdrawn): The apparatus according to claim 6, wherein said mixture of aluminum hydroxide and calcium hydroxide is in the form of an agglomerate in which calcium hydroxide fine particles are attached to the surface of aluminum hydroxide particles.

Claim 9 (withdrawn): The apparatus according to claim 6, wherein said hollow interior of said treatment column is heated to 550 to 850°C.

Claim 10 (withdrawn): The apparatus according to claim 6, having a first stage treatment column and a second stage treatment column that each have a hollow interior and are connected together in series, wherein said hollow interior of said first stage treatment column is heated to 500 to 700°C, and said hollow interior of said second stage treatment column is heated to a temperature 50 to 150°C higher than the temperature of said hollow interior of said first stage treatment column in a range of 650 to 800°C.

Claim 11 (currently amended): A method of ~~treating a gas containing a fluorine-containing compound and~~ recovering fluorine <u>from a gas</u>, comprising<u>:</u>

contacting [[said]] a gas including at least one fluorine-containing compound with a treatment agent ~~comprising a mixture of aluminum hydroxide and calcium hydroxide~~ at a temperature of 550 to 850°C to recover fluorine from the gas and produce calcium fluoride,

wherein the at least one fluorine-containing compound comprises at least one of a fluorinated hydrocarbon and a perfluoro compound, the treatment agent comprises an agglomerate including calcium hydroxide particles attached to surfaces of aluminum hydroxide particles, the calcium hydroxide particles have a particle diameter of 3-10 μm, and the aluminum hydroxide particles have a particle diameter of 50-100 μm.

Claims 12-13 (canceled)

Claim 14 (currently amended): [[The]] A method of recovering fluorine from a gas ~~according to claim 11~~, comprising:

contacting a gas including at least one fluorine-containing compound with a treatment agent at a first temperature of 500 to 700°C; and

contacting the gas with the treatment agent at a second temperature of 650 to 800°C,

wherein ~~said gas containing a~~ the at least one fluorine-containing compound ~~is initially made to contact with~~ comprises at least one of a fluorinated hydrocarbon and a perfluoro compound, said treatment agent comprises an agglomerate including calcium hydroxide particles attached to surfaces of aluminum hydroxide particles, the calcium hydroxide particles have a particle diameter of 3-10 μm, the aluminum hydroxide particles have a particle diameter of 50-100 μm, ~~comprising a mixture of aluminum hydroxide and calcium hydroxide at a temperature of 500 to 700°C, and is then made to contact with said treatment agent comprising a mixture of aluminum hydroxide and calcium hydroxide at a temperature~~ and the second temperature is higher than the first temperature by 50 to 150°C ~~higher than initially in a range of 650 to 800°C~~.

Claim 15 (withdrawn): An apparatus for treating a gas containing a fluorine-containing compound and recovering fluorine, comprising:

a treatment column comprising a hollow interior that is packed with a treatment agent comprising a mixture of aluminum hydroxide and calcium hydroxide and through which said gas can pass, heating means capable of heating said hollow interior to a prescribed temperature, a gas introduction port for introducing said gas into said hollow interior, and an exhaust pipe for discharging gas produced from said hollow interior.

Claim 16 (withdrawn): The apparatus according to claim 15, wherein said mixture of aluminum hydroxide and calcium hydroxide is in the form of an agglomerate in which calcium hydroxide fine particles are attached to the surface of aluminum hydroxide particles.

Claim 17 (withdrawn): The apparatus according to claim 15, wherein said hollow interior of said treatment column is heated to 550 to 850°C.

Claim 18 (withdrawn): The apparatus according to claim 15, having a first stage treatment column and a second stage treatment column that each have a hollow interior and are connected together in series, wherein said hollow interior of said first stage treatment column is heated to 500 to 700°C, and said hollow interior of said second stage treatment column is heated to a temperature 50 to 150°C higher than the temperature of said hollow interior of said first stage treatment column in a range of 650 to 800°C.

Claim 19 (new): A method of decontaminating a gas, comprising:

adding oxygen to a gas including at least one of CO and a compound that produces CO during a decontamination of the gas;

contacting the gas with a treatment agent at a first temperature of 500 to 700°C; and

contacting the gas with the treatment agent at a second temperature of 650 to 800°C,

wherein the treatment agent comprises an agglomerate including calcium hydroxide particles attached to surfaces of aluminum hydroxide particles, the calcium hydroxide particles have a particle diameter of 3-10 μm, the aluminum hydroxide particles have a particle diameter of 50-100 μm, and the second temperature is higher than the first temperature by 50 to 150°C.